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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,480	04/12/2004	Kazuhiro Yagishita	8305-245US (NP156-1)	3127

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EXAMINER

MCAVOY, ELLEN M

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1797

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/822,480	Applicant(s) YAGISHITA ET AL.	
	Examiner Ellen M. McAvoy	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' arguments filed on 06 November 2008 have been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 7-9 are still rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazato (6,569,818) in combination with Minami et al (5,792,733) or Nishikawa et al (5,245,070).

Applicants' arguments filed 06 November 2008 have been fully considered but they are not persuasive. As previously set forth, Nakazato et al ["Nakazato"] disclose a lubricating oil composition having a low phosphorus (P) content of 0.01 to 0.1 weight %, a sulfur content of 0.01 to 0.3 weight % and a sulfated ash of 0.1 to 1 weight %, which is comprised of (a) a major amount of mineral base oil having a low sulfur (S) content of at most 0.1 weight %, preferably at most 0.005 weight %, (b) an ashless alkenyl or alkyl-succinimide dispersant or derivative thereof in an amount of 0.01 to 0.3 weight % in terms of nitrogen atom content, (c) a metal-containing

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detergent such as an alkali metal or an alkaline earth metal salt of an alkylsalicylic acid in an amount of about 0.2 to 7 weight %, and may include other metal detergents such as sulfonate detergents, (d) a zinc dialkyl-dithiophosphate in an amount of 0.01 to 0.1 weight % in terms of a phosphorus content, and (e) an oxidation inhibitor selected from the group consisting of a phenol compound and an amine compound in an amount of 0.01 to 5 weight %. See column 2, line 25 to column 3, line 7. Nakazato teaches that the lubricating oil composition may be used in internal combustion engines including gas engines. See column 1, lines 5-11. Nakazato teaches that the lubricating oil compositions may contain other auxiliary additives such as phosphoric acid esters and phosphorous acid esters. Nakazato teaches that the additives can be incorporated into the lubricating oil compositions in an amount ranging from about 0.001 to 3 weight %. See column 7, line 59 to column 8, line 11. Applicants' invention differs by claiming a specific phosphorus acid ester compound, that of a triphosphate set forth by formula (1) in claim 1. However, as evidenced by Minami et al ["Minami"] or Nishikawa et al ["Nishikawa"], such triphosphate compounds are well-known in the art as antiwear agents in lubricating oil compositions. See the phosphorus-containing compounds represented by the formula in col.1, lines 52-58, in Minami, wherein the X substituents may all be oxygen. Minami also discloses lubricating oil compositions suitable for use in internal combustion engines in column 2, lines 3-23. Nishikawa discloses alkyl phosphates in column 2, lines 9-15, which may be used as an additive to lubricants. Having the prior art references before the inventors at the time the invention was made it would have been obvious to the skilled oil formulator to have added the triphosphate compound of either Minami or Nishikawa to the oil composition of Nakazato if its known imparted property was so desired. The examiner recognizes that obviousness can only be

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established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation relied on by the examiner is the disclosure in Nakazato allowing for the addition of phosphorus-containing compounds to the lubricating oil compositions.

In response applicants argue that zinc dialkyldithiophosphate is an essential component of the Nakazato composition and is contained in all the Examples of the prior art, and that Nakazato does not teach or suggest a composition containing no zinc dialkyldithiophosphates as claimed. This is not deemed to be persuasive because zinc dialkyldithiophosphates are extremely well known lubricating oil additives which are effective as antioxidants and as extreme pressure/anti-wear agents. Nakazato teaches the addition of conventional zinc dialkyldithiophosphates to the lubricant composition in a very minor amount of 0.01 weight % in terms of a phosphorus content. Further, it has been held that the elimination of a step or an element is obvious if the function of the element is not desired. See MPEP 2144.04. The examiner maintains the position that it would have been obvious to the skilled oil formulator to have omitted the conventional zinc dialkyldithiophosphate component from the lubricating oil composition of Nakazato if the function attributed to the component was not desired or required. See *Ex Parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989).

Applicants argue that the results exhibited by the presently claimed compositions would not have been expected based on the proposed combination of Nakazato with Minami or

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Nishikawa. Applicants argue that the composition of Inventive Example 1 (containing no ZnDTP) exhibited superior properties relative to the compositions of Comparative Example 1 and Inventive Example 2 (both containing ZnDTP). This is not deemed to be persuasive because “superior properties” are not seen to exist for Inventive Example 1 (set forth in Table 1) and for all of the compositions that do not contain zinc dialkyldithiophosphate over the all of the compositions that do contain zinc dithiophosphate. Further, the examiner is of the position that the results presented are not commensurate in scope with the degree of protection sought by the claims.

Claim Rejections - 35 USC § 103

Claims 1-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al (6,001,780) in combination with Minami et al (5,792,733) or Nishikawa et al (5,245,070).

Ho et al [“Ho”] disclose an ashless lubricating oil composition that comprises (a) a major amount of base oil of lubricating viscosity, (b) from about 1 to 6 wt.% of an untreated succinimide dispersant, and (c) from about 1 to 6 wt.% of a broated succinimide dispersant. Ho teaches that the lubricating oil composition may contain other additive components including metal detergents such as metal salts of hydroxy alkyl or alkenyl aromatic compounds, antioxidants including phenolic-type and amine-type compounds in an amount of about 0.05 to 3.0 wt.% per total amount of the engine oil, and antiwear agents including phosphates and phosphites. See column 5, line 30 to column 6, line 14. Ho allows for the addition of extreme pressure agents to the lubricating oil composition which include zinc dialkyldithiophosphates and 6 other types of extreme pressure agents; however, Ho does not require the addition of zinc

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dialkyldithiophosphate to the composition. See column 6, lines 31-36, and the examples.

Applicants' invention differs by adding to the composition a specific phosphorus acid ester compound, that of a triphosphate set forth by formula (1) in claim 1. However, as evidenced by Minami et al ["Minami"] or Nishikawa et al ["Nishikawa"], such triphosphate compounds are well-known in the art as antiwear agents in lubricating oil compositions. See the phosphorus-containing compounds represented by the formula in column 1, lines 52-58, in Minami, wherein the X substituents may all be oxygen. Minami also discloses lubricating oil compositions suitable for use in internal combustion engines in column 2, lines 3-23. Nishikawa discloses alkyl phosphates in column 2, lines 9-15, which may be used as an additive to lubricants.

Having the prior art references before the inventors at the time the invention was made it would have been obvious to the skilled oil formulator to have added the triphosphate compound of either Minami or Nishikawa to the oil composition of Ho if its known imparted property was so desired. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation relied on by the examiner is the disclosure in Ho allowing for the addition of phosphates and phosphites to the lubricating oil compositions as anti-wear agents.

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Conclusion

The rejection of claims 1-5 and 7-9 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement (New Matter rejection), made in the previous office action is withdrawn in view of applicants' arguments.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ellen M McAvoy/
Primary Examiner
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EMcAvoy
January 12, 2009

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